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EXAMINER

NGUYEN, TOAN D

ART UNIT

PAPER NUMBER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/587,892
Filing Date: June 06, 2000
Appellant(s): NAGARAJAN, RAMESH

Joseph B. Ryan
For Appellant

EXAMINER'S ANSWER

MAILED
JUL 27 2006
GROUP 2600

This is in response to the appeal brief filed April 17, 2006 appealing from the Office action mailed January 12, 2006.

Art Unit: 2616

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,781,535	Russ et al.	7-14-1998
5,742,774	Al-Salameh et al.	4-21-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russ et al. (US 5,781,535) in view of Al-Salameh et al. (US 5,742,774).

For claims 1 and 8-9, Russ et al. disclose implementation protocol for SHN-based algorithm restoration platform, the method comprising the steps of:

routing a given traffic demand from a first network element (figure 8, reference NODE 4, col. 9 lines 62-64) to a second network element (figure 8, reference NODE 2) (col. 10 lines 4-6); and

processing the traffic demand in the second network element (figure 8, reference NODE 2) such that a copy of a signal associated with the demand is at least one of: (i) retained at the second network element (reference NODE 2, col. 10 lines 29-30), while the signal is routed to at least one additional network element (col. 10 lines 4-5); and (ii) routed to at least one additional network element, while the signal is routed to at least one network element other than the additional network element (col. 10 lines 4-5).

However, Russ et al. do not expressly disclose:

wherein the second network element is coupled to a first dual-homed network element of a set of dual-homed network elements, either directly or via a given network

element corresponding to said at least one network element other than the additional network element; and

wherein a given network element corresponding to said at least one additional network elements is coupled to a second dual-homed network element of the set of dual-homed network elements, either directly or via another additional network element.

In an analogous art, Al-Salameh et al. disclose:

wherein the second network element (figure 3, reference $16'_{m-1}$) is coupled to a first dual-homed network element (figure 3, reference $20'_1$) of a set of dual-homed network elements, either directly or via a given network element corresponding to said at least one network element other than the additional network element (col. 6 lines 19-23); and

wherein a given network element (figure 3, reference $16'_{m-4}$) corresponding to said at least one additional network elements is coupled to a second dual-homed network element (figure 3, reference $20'_1$) of the set of dual-homed network elements, either directly or via another additional network element (col. 6 lines 19-23).

Al-Salameh et al. disclose further wherein the second network element is an element of a set of dual homed network elements (figure 3, col. 6 lines 19-23 as set forth in claim 8); wherein the at least one additional network element is an element of a set of dual-homed network elements (figure 3, col. 6 lines 19-23 as set forth in claim 9).

One skilled in the art would have recognized the wherein second network element is coupled to a first dual-homed network element of a set of dual-homed network elements, and would have applied Al-Salameh et al.'s optical fiber transmission

network in Russ et al.'s flooding message. Therefore, it would have been obvious to one of ordinary skilled in the art at the time of the invention, to use Al-Salameh et al.'s multi-ring SONET architecture having shared gateways daisy chained to complete the main and subsidiary ring controlled by a common master controller in Russ et al.'s implementation protocol for SHN-based algorithm restoration platform with the motivation being to provide a fully redundant dual-homing arrangement (provide by the optical links linking the customer premises to the common gateways $16'_{m-1}$ and 16_m) (col. 6 lines 20-23).

For claim 2, Russ et al. disclose wherein the first network element (figure 8, reference NODE 4) comprises a source network element of the traffic demand (col. 9 lines 62-64).

For claim 3, Russ et al. disclose wherein the second network element (figure 8, reference NODE 2, comprises an element of a ring-type transport (col. 1 lines 54-55).

For claim 4, Russ et al. disclose wherein the second network element (figure 8, reference NODE 2) comprises an element of a mesh-type transport (col. 1 line 60).

For claim 5, Russ et al. disclose wherein the copy of the signal associated with the demand is generated and retained at the second network element (reference NODE 2, col. 10 lines 29-30), and the signal continues on to another network element (col. 10 lines 4-5).

For claim 6, Russ et al. disclose wherein a copy of the signal is generated at each of a set of multiple network elements including the second network element (col. 10 lines 4-5 and col. 10 lines 29-30).

For claim 7, Russ et al. disclose wherein the copy of the signal associated with the demand (col. 10 lines 29-30) comprises at least a portion of a multicast of the signal generated by the second network element (reference NODE 2) and multicast to at least two other network elements (figure 8, col. 10 lines 8-12).

For claims 10, 17 and 18, Russ et al. disclose implementation protocol for SHN-based algorithm restoration platform, the apparatus comprising:

a given network element (figure 8, reference NODE 2) coupled to one or more additional network elements (figure 8, references NODE 1, 3, 4, 5 and 6) and operative to process a traffic demand received from one of the additional network elements (figure 8, reference NODE 4) such that a copy of a signal associated with the demand is at least one of: (i) retained at the given network element (col. 10 lines 29-30), while the signal is routed to at least one of the additional network elements (col. 10 lines 4-5); and (ii) routed to at least one of the additional network elements, while the signal is routed to at least one network element other than the one of the additional network elements (figure 8, col. 10 lines 4-5).

However, Russ et al. do not expressly disclose:

wherein the given network element is coupled to a first dual-homed network element of a set of dual-homed network elements, either directly or via a given network element corresponding to said at least one network element other than the additional network element; and

wherein another network element corresponding to said at least one of the additional network elements is coupled to a second dual-homed network element of the

set of dual-homed network elements, either directly or via another additional network element.

In an analogous art, Al-Salameh et al. disclose:

wherein the given network element (figure 3, reference $16'_{m-1}$) is coupled to a first dual-homed network element (figure 3, reference $20'_1$) of a set of dual-homed network elements, either directly or via a given network element corresponding to said at least one network element other than the additional network element (col. 6 lines 19-23); and

wherein another network element (figure 3, reference $16'_{m-4}$) corresponding to said at least one of the additional network elements is coupled to a second dual-homed network element of the set of dual-homed network elements, either directly or via another additional network element (col. 6 lines 19-23).

Al-Salameh et al. disclose further wherein the given network element is an element of a set of dual-homed network elements (col. 6 lines 19-23 as set forth in claim 17); and wherein at least one of the additional network elements is an element of a set of dual-homed network elements (col. 6 lines 19-23 as set forth in claim 18).

One skilled in the art would have recognized the wherein the given network element is coupled to a first dual-homed network element of a set of dual-homed network elements, and would have applied Al-Salameh et al.'s optical fiber transmission network in Russ et al.'s flooding message. Therefore, it would have been obvious to one of ordinary skilled in the art at the time of the invention, to use Al-Salameh et al.'s multi-ring SONET architecture having shared gateways daisy chained to complete the main and subsidiary ring controlled by a common master controller in Russ et al.'s

implementation protocol for SHN-based algorithm restoration platform with the motivation being to provide a fully redundant dual-homing arrangement (provide by the optical links linking the customer premises to the common gateways $16'_{m-1}$ and 16_m) (col. 6 lines 20-23).

For claim 11, Russ et al. disclose wherein the traffic demand is received at the given network element (reference NODE 2) from a source network element of the traffic demand (figure 8, reference NODE 4) (col. 9 lines 62-64).

For claim 12, Russ et al. disclose wherein the given network element comprises an element of a ring-type transport (col. 1 lines 54-55).

For claim 13, Russ et al. disclose further wherein the given network element comprises an element of a mesh-type transport (col. 1 line 60).

For claim 14, Russ et al. disclose wherein the copy of the signal associated with the demand is generated and retained at the given network element (reference NODE 2, col. 10 lines 29-30) and the signal continues on to another network element (col. 10 lines 4-5).

For claim 15, Russ et al. disclose wherein a copy of the signal is generated at each of a set of multiple network elements including the given network element (col. 10 lines 4-5 and col. 10 lines 29-30).

For claim 16, Russ et al. disclose wherein the copy of the signal associated with the demand (col. 10 lines 29-30) comprises at least a portion of a multicast of the signal generated by the given network element and multicast to at least two other network elements (figure 8, col. 10 lines 8-12).

For claim 19, Russ et al. disclose implementation protocol for SHN-based algorithm restoration platform, the apparatus comprising:

a first network element (figure 8, reference NODE 4, col. 9 line 62) ; and
a second network element (figure 8, reference NODE 2) coupled to the first network element (figure 8, reference NODE 4), the first network element (reference NODE 4) routing a given traffic demand to the second network element (reference NODE 2)(col. 9 lines 62-64 and col. 10 lines 4-5), the second network element (figure 8, reference NODE 2) processing the traffic demand such that a copy of a signal associated with the demand is at least one of (i) retained at the second network element (reference NODE 2, col. 10 lines 29-30), while the signal is routed to at least one additional network element (col. 10 lines 4-5); and (ii) routed to at least one additional network element, while the signal is routed to at least one network element other than the additional network element (col. 10 lines 4-5).

However, Russ et al. do not expressly disclose:

wherein the second network element is coupled to a first dual-homed network element of a set of dual-homed network elements, either directly or via a given network element corresponding to said at least one network element other than the additional network element; and

wherein a given network element corresponding to said at least one additional network elements is coupled to a second dual-homed network element of the set of dual-homed network elements, either directly or via another additional network element.

In an analogous art, Al-Salameh et al. disclose:

wherein the second network element (figure 3, reference $16'_{m-1}$) is coupled to a first dual-homed network element (figure 3, reference $20'_1$) of a set of dual-homed network elements, either directly or via a given network element corresponding to said at least one network element other than the additional network element (col. 6 lines 19-23); and

wherein a given network element (figure 3, reference $16'_{m-4}$) corresponding to said at least one additional network elements is coupled to a second dual-homed network element (figure 3, reference $20'_1$) of the set of dual-homed network elements, either directly or via another additional network element (col. 6 lines 19-23).

One skilled in the art would have recognized the wherein second network element is coupled to a first dual-homed network element of a set of dual-homed network elements, and would have applied Al-Salameh et al.'s optical fiber transmission network in Russ et al.'s flooding message. Therefore, it would have been obvious to one of ordinary skilled in the art at the time of the invention, to use Al-Salameh et al.'s multi-ring SONET architecture having shared gateways daisy chained to complete the main and subsidiary ring controlled by a common master controller in Russ et al.'s implementation protocol for SHN-based algorithm restoration platform with the motivation being to provide a fully redundant dual-homing arrangement (provide by the optical links linking the customer premises to the common gateways $16'_{m-1}$ and 16_m) (col. 6 lines 20-23).

(10) Response to Argument

**A. Response to appellant's argument: 35USC 103(a) claims 1-7 and 10-19,
Russ et al. and Al-Salameh et al.:**

Appellant argues the relied-upon teachings in Al-Salameh fail to meet the particular limitations of claim 1 which recite coupling of a particular types of network elements with corresponding elements of a set of dual-homed network elements.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., coupling of particular types of network elements) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Appellant argues that the recited teachings from Al-Salameh fail to motivate the proposed combination with Russ. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, to combine Al-Salameh and Russ would have been obvious to one of ordinary skill in the art because Al-Salameh clearly teaches at col. 6 lines 19-23, "Further, the network 10' affords the advantage of providing the node 20' (the customer premises) with a fully

redundant dual-homing arrangement (provided by the optical links linking the customer premises to the common gateways $16'_{m-1}$ and 16_m)". The motivation to combine Al-Salameh et al.'s teaching of dual-homing arrangement in Russ et al. would be to provide failure protection for Russ et al.'s node or element.

Appellant argues further that even if it is assumed that a proper prima facie case has been established, there are particular teachings in one or more of the references which controvert the obviousness argument put forth by the Examiner. For example, the above-noted teachings in Al-Salameh relating to a type of conventional dual homing arrangement are believed to teach directly away from the limitations of claim 1. Such a teaching away is believed to constitute strong evidence of non-obviousness. In response, the combination teaches each and every limitation that claims require. Therefore, it is irrelevant as to whether or not the prior art reference teaches conventional or non-conventional dual-homing arrangement.

B. Response to appellant's argument: 35USC 103(a) claim 8, Russ et al. and Al-Salameh et al.:

Appellant argues that Russ and Al-Salameh fail to disclose or suggest a particular network element that performs the claimed processing of a traffic demand and is also an element of a set of dual-homed network elements. The examiner wishes to point out that the particular network element feature limitation never find in claim 8 of the invention.

C. Response to appellant's argument: 35USC 103(a) claim 9, Russ et al. and Al-Salameh et al.:

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Appellant argues that Russ and Al-Salameh fail to disclose or suggest a particular network element that performs the claimed processing of a traffic demand and is also an element of a set of dual-homed network elements. The examiner wishes to point out that the particular network element feature limitation never find in claim 9 of the invention.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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